

**PROCEDURES FOR VERIFYING DUCTILITY TEST
APPARATUS
AASHTO T 51**

A. PURPOSE

This procedure is intended to give instruction for the checking of the equipment used to perform the Ductility Test.

B. APPARATUS REQUIRED

1. Calibrated calipers readable to 1.0 mm
2. Timer, readable to 0.1 second
3. Thermometer, calibrated and readable to 0.5 °C (1.0 °F)

C. PROCEDURE

1. Assemble a mold. Measure the thickness and the width at the minimum cross-section to 1 mm.
2. Fill the ductility machine with water. Attach the clips of a mold to the pins or hooks of the testing machine. Measure, to the nearest 1 mm, the distance from the top of the mold to the water level. Measure, to the nearest 1 mm, the distance from the bottom of the testing machine to the bottom of the mold.
3. Start the ductility machine. Measure and record the distance through which the clips move after 1 minute.
4. Measure and record the depth of the water in the bath.
5. Observe and record the temperature of the water in the bath.

D. TOLERANCE

Ductility apparatus shall meet the physical requirements specified in AASHTO T 51.

EQUIPMENT VERIFICATION RECORD

Verified By: _____	Date: _____
Equipment: <u>Ductility Apparatus</u>	Location (Lab): _____
Identification No.: _____	Verification Frequency: _____
Previous Verification Date: _____	Next Due Date: _____
Verification Equipment Used: Calibrated calipers, ID #: _____ Calibrated Thermometer, ID #: _____	
Timer, ID #: _____	
Verification Procedure: <u>(In-house) OMR-CVP-35 / AASHTO 51</u>	

1. Mold:				
*A Distance between centers	111.5 – 113.5 mm (4.390 – 4.469 in.)			
*B Total length of briquet	74.5 – 75.5 mm (2.933 – 2.972 in.)			
*C Distance between clips	29.7 – 30.3 mm (1.169 – 1.193 in.)			
*D Shoulder	6.8 – 7.2 mm (0.268 – 0.283 in.)			
*E Radius	15.75 – 16.25 mm (0.620 – 0.640 in.)			
*F Width at min., cross section	9.9 – 10.1 mm (0.390 – 0.398 in.)			
*G Width at mouth of clip	19.8 – 20.2 mm (0.779 – 0.795 in.)			
*H Distance between centers of radii	42.9 – 43.1 mm (1.689 – 1.697 in.)			
*I Hole diameter	6.5 – 7.0 mm (0.256 – 0.276 in.)			
*J Thickness	9.9 – 10.1 mm (0.390 – 0.398 in.)			

* Figure 1

2. Carriage speed (cm/min):

- (a) Measured at 20-25?..... _____
- (b) Measured at 50-55?..... _____
- (c) Measured at 85-90?..... _____

3. Measure distance:

- (a) Top of mold to water level?..... _____
- (b) Bottom of the testing machine to the bottom of the mold? _____

4. Depth of water in bath?..... _____

5. Temperature of water in bath?..... _____